interest in relation to the weather; a large programme, which has been fairly filled, though with some extraordinary mistakes as to matters of fact. Mr. Russell puts Reykjavik in *Greenland* (p. 67) and Krakatoa in *Java* (p. 135). He writes Hwangho, the name of the river, for Han-kow, the city on the Yang-tse-Kiang (p. 206). The great drought in the Argentine Republic, in the years 1828–1831, is called, we are told, *Il grand seco* (p. 99); the first word being Italian, the second French, and only the third Spanish. He says on p. 88 that the rainfall at Cherrapunjee, in Assam, amounted in one year to 905 inches. No such fall is recorded. Hunter's *Gazetteer of India* makes the annual average 462.85 inches, and adds:

> It is reported that a total of 805 inches fell in 1861, of which 366 inches are assigned to the single month of July.

Most surprising of all is the assertion on p. 98, that there are no glaciers in the tropics.

Kilimanjaro is within the tropics, and Dr. Hans Meyer has described its glaciers. Mr. Whymper found glaciers on the Andes of the Equator; on Altar, on Antisana, on Cayambe, on Chimborazo, on Cotopaxi, on Illiniza, on Sara-urcu, and on other mountains, and he says:

> In essential features the Glaciers of Ecuador do not differ from the Glaciers of the Alps, and in minor points they present little novelty.
> (*Travels amongst the Great Andes of the Equator, p. 349.*)

The Bibliography of the Future. A Paper reviewing the existing Condition of National and International Bibliography, with suggested Reforms. By Frank Campbell (of the Library, British Museum). 8vo. London, 1895.

Mr. Campbell's Paper was read before the Annual Meeting of the British Library Association in September, 1894, and it deserves to be read by every one who is interested in the subject of books.

There is no disputing his statement that bibliography is now in a state of chaos and that the first thing to be done is, to devise a system that shall bring order into the work of to-day. This point fixed, it will be possible to attack the accumulated disorder of the past.

The most conspicuous cause of the existing confusion is rightly declared to be the absence of National (compulsory) Registration of Books, the true basis of all bibliography. Everything should be registered. Mr. Campbell gives an illustration of the present method, as follows:

> Six men write six works upon Agricultural Science.

1. One publishes his work separately, and men call it a "book."
2. The second work is buried in a "Collected Works" series, which is generally provided for by one vague title.
3. The third appears through the medium of a learned society journal, and it is called an "article."
4. The fourth appears also as an "article" in a magazine of the day.
5. The fifth appears as a contribution to a National Encyclopædia.
6. The sixth appears by instalments in an enterprising newspaper.

The "book" is catalogued; the others are passed over, and practically disappear.

If there is to be a systematic bibliography, it must follow substantially the lines indicated by Mr. Campbell; but the immensity of the task will discourage the sturdiest reformers.

Survey of Tides and Currents in Canadian Waters. Reports by W. Bell Dawson, C. E. 8vo. Ottawa, 1894 and 1895.

In the first of these reports Mr. Dawson gives the history of the Survey, which practically began in 1890.

The tides on the Canadian Atlantic Coast vary in amount, from four or five feet in the open Atlantic to twelve and eighteen in the St. Lawrence River and thirty feet and more in the Bay of Fundy, and to follow their movements in a satisfactory way it will be necessary to establish a relatively large number of stations. Up to December, 1893, six self-recording tide-gauges had been placed: one each at St. John, N. B., at South-west Point, Anticosti, at St. Paul Island, Cape Breton, at Grindstone, on the east side of the Magdalen Islands,* at Quebec and at Father Point (unfinished). One has since been added, on the west side of Forteau Bay, in the Strait of Belle Isle.

From the observations already made, it appears that the tide at Quebec is nearly simultaneous in absolute time with that at Dover, and the tide at St. John, N. B., with the tide at Brest. At Halifax, although the tide is earlier than at any of the European ports, it is nearly simultaneous with that at Sandy Hook.

At the outset, it was considered most important to ascertain the nature of the currents at the two main entrances to the Gulf of St. Lawrence; the Strait of Belle Isle and Cabot Strait. The results are:

For the Strait of Belle Isle, the currents are fundamentally tidal and, under normal conditions, run east and west with a velocity of about two knots per hour. The inward flow from the east is rather greater than the outward flow from the west.

* So stated in the Report, but the map puts Grindstone on the west.